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Subject: FW: BNA Clip - Scientists Say They Were Left Out of Pesticide Drift Research

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Subject: BNA Clip - Scientists Say They Were Left Out of Pesticide Drift Research

FYSA

Scientists Say They Were Left Out of Pesticide Drift Research

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By Tiffany Stecker

Farmers could have had better information on handling a new herbicide linked to widespread crop damage in the South and Midwest, but Monsanto Co. limited the scope of research on the pesticide, according to a pair of agricultural scientists.

The scientists told Bloomberg BNA that academic researchers were contracted to measure the effectiveness of a new formulation of dicamba, a 1960s-era chemical that has been updated to handle tough-to-kill weeds. However, they didn't have the opportunity to look at the potential of the herbicide to evaporate and settle on another farm, where it can damage crops, until the products were available for sale, **Kevin Bradley, a weed scientist at the University of Missouri, said.**

"I feel like many of my colleagues would have liked to do volatility research and were not allowed," Bradley said.

Bradley and another scientist, Tom Mueller at the University of Tennessee's Institute of Agriculture, both conducted independent research on the new dicamba products after they were on the market. Their research is now being cited in a class-action that alleges Monsanto Co., BASF Corp., and Dupont encouraged growers to buy dicamba-based products despite concerns they could drift to nearby farms and damage soybeans, fruit orchards and other "off-target" crops.

Monsanto, in a statement to Bloomberg BNA, dismissed assertions that it didn't prioritize experiments on the pesticide's drift potential. The company said it performed extensive studies on volatility for its XtendiMax herbicide, which includes new technology to prevent the formation of dicamba acid and make it less prone to leaving the field. The Environmental Protection Agency requires that only the new, low-volatility pesticides be used with Monsanto's genetically-engineered crops and that the pesticide can't be sprayed in wind speeds over 15 miles per hour.

"We have expanded our university partnerships and are collaborating with numerous academics and extension agents who are testing the Roundup Ready 2 Xtend Crop System," Monsanto spokeswoman Charla Lord said, referring to the combination of dicamba-resistant seeds and the herbicide. "We look forward to continuing these partnerships in the future."

Hundreds of Damage Reports

Farmers throughout the country are struggling to control weeds that no longer die when sprayed with glyphosate, the world's most-used herbicide that is the main ingredient in Monsanto's Roundup. These weeds lead to big crop losses: palmer amaranth—also called pigweed—can impinge on up to 91 percent in corn yields and up to 79 percent of soybean yields, according to Purdue University Extension.

To meet farmers' needs, companies have developed new formulations of pesticides with decades-old chemicals like dicamba, 2,4-D, and glufosinate. The new tools are popular, and have given farmers hope for combating weeds for the first time in years.

"We're the cleanest from a weed control standpoint than we've been in a decade," Larry Steckel, a plant sciences professor at the University of Tennessee, told Bloomberg BNA.

Growers in the South and the West are now using dicamba on Monsanto's Roundup Ready 2 Xtend cotton and soybeans, genetically-engineered crops that don't die when sprayed with the herbicide. BASF and Dupont also both market herbicides that could be used on dicamba-resistant crops.

However, the lawsuit argues that the companies didn't tell farmers that volatility of the dicamba products could develop over several days, carrying the chemical from one field to the next. Temperature inversions, which trap air in specific locations, can serve as a conduit for dicamba to remain at ground level and eventually travel miles away from a pesticide sprayer's fields, according to the lawsuit.

"They just don't know what's going on in their fields**," Paul Lesko, an attorney with St. Louis-based Peiffer Rosca Wolf who represents six Arkansas farms in the class action case**, told Bloomberg BNA.

More than 700 Arkansas farmers have filed reports of damage with the state agriculture department from the pesticide. In neighboring Missouri, nearly 200 growers, most of them soybean farmers, have complained. Calls to the Tennessee Department of Agriculture led to restrictions on spraying in the state.

The concerns hit as two of the three companies are seeking regulatory approval for big mergers: Bayer AG is expected to buy Monsanto for $66 billion and Dupont will join Dow Chemical Co. in a $79 billion partnership.

The dicamba woes likely won't affect the companies' earnings in the short term said Jason Miner, an analyst with Bloomberg Intelligence said, but could play into longer-term strategic changes.

Research Cited in Lawsuits

Bradley said that universities are often called on to investigate all aspects of a new product in order to

advise farmers. However, Monsanto didn't provide its new products to researchers unless the experiments were limited to certain data, according to Bradley.

"There's a strong stipulation," Bradley, added, "about what we can research and what we can't."

Bradley undertook preliminary research on his own, once the products were on the market. His findings, showcased in a July 6 Powerpoint presentation, are part of the class-action, which collects studies, testimony and other warnings dating back several years.

"Initial results [with] air samples and indicator plants suggest that both [XtendiMax and BASF's Engenia] can be detected in air after application," Bradley said, according to court records. "Indicator plants suggest volatization is still occurring at least 24 hours after treatment."

Mueller of the University of Tennessee told Bloomberg BNA he was unable to get the new formulations for testing until they came on the market in 2016. Like Bradley, Mueller also presented findings this month indicating that Engenia, a BASF dicamba product, "is moving from the site of application into the air immediately about the treated field."

"Soybean injury in adjacent areas should be expected from vapor movement of dicamba after application," Mueller wrote on the Powerpoint slide from a presentation on his findings. Mueller's research, funded by the Tennessee Soybean Promotion Board, is part of the plaintiffs' case against the manufacturers.

"I'm disappointed in what's happening," Mueller told Bloomberg BNA.

Based on company data, the new formulations were supposed to be far less prone to drift than earlier versions. State agencies and agricultural extensions also put in extra work to ensure that farmers would use the new products correctly, he said.

Monsanto Disputes Cause

Monsanto's U.S. commercial operations lead Brian Naber said in a July 21 blog post the company's preliminary findings indicate that volatility of the approved products is not the major source of the off-target movement. Pesticide applicators are not following label instructions and spraying older products not allowed for use on the genetically-engineered seeds, he said.

Laura Svec, a spokeswoman for Dupont, said that thousands of growers have used the products properly and successfully to address resistant weeds and boost productivity. Dupont has licensed Xtend soybean seeds from Monsanto and manufactures FeXapan dicamba herbicide.

The Agriculture Department approved the sale of Monsanto's Xtend soybeans and cotton in 2015. The EPA, however, didn't approve the new herbicides until nearly two years after USDA made its decision.

In the two summers in between, growers bought the new seeds but had only old, more volatile dicamba available. Complaints of crop damage in Missouri soared in 2016. In one instance, a dispute over drift led to the shooting death of a farmer.

The lawsuit alleges that groups and farmers have warned about the drift problem for years. In 2014 a coalition of farmers named Save Our Crops warned Monsanto that the premature release of dicamba resistant traits would pose a risk to crops. In 2015, a farmer who had purchased XTendFlex cotton testified that a seed representative told him to spray dicamba over his crops, even though it was illegal at that time.

“He was just doing what somebody told him,” the farmer, Don Masters, told the Arkansas Plant Board, according to the lawsuit. With penalties were as low as $1 per acre for the average cotton farm, growers were willing to risk using an outdated product in violation of the EPA’s rules to solve their weeds problems, the plaintiffs argue.

This year, cases of dicamba drift have centered in Missouri’s bootheel region and the northern Mississippi Delta. But reports also have been filed in Illinois, Indiana and Nebraska.

Mueller of the University of Tennessee doesn’t deny the need for effective pesticides for farmers, but said that the agricultural community is going to have to answer some “really difficult questions” for 2018.

“It’s a very complicated situation,” he said. “At the end of the day the most important issue for the farmer is to grow a crop, make money and feed people.”